Page 1

Item ID: Revision ID: Item Name:	D350-636-0 Skidtube LH	13		Accept	*N900	040	100)* s	Setup Star	171	S1* S2*
Start Date: Required Date: Reference:	19/07/2012 : 02/08/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					.7/
Approvals:	Process Pla	in: MLJ	Date:	Tooling: SPC (Y/N):		ate:	<u>. </u>	R	Run Star Stop	171	R1* R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Fian Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr									
D2750 D3492 IIN-D350-636	F C		0	andres :						,÷	
100 *1\\ DC Document Control		DOCUMENT CONTRO Memo Photocopy b		0.00 0.00 per PPP D350-636-013 CH	17/c/7/				M	,517	2/08/

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
											QA Closed:	Date:	•
Work Ord	er: _					DISPOSITION	,			AGAINST DE	PARTMENT		
Part I	۷o. ₋					Rework Scrap Use-as-is		ſ	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR I	No.	·				Work Order Update			Large Fab	Composite]	Supplier	
Root					Descri	ption of work order update	- 1	nitial					
Cause		Date	Step	Qty	•	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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						F	AUL	T CATE	GORY				
Landi	ng (Gear		•		General					٦		
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		Centre No	ot Concer	ntric to	o/s [BOM/Route		Hardwa	re	<u>L</u>	Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspect	on incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete,	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	it			Countersink		Mislabe	eled		Positioned \	Vrong	_
		Inspection	n Strip in	Tube		Cut Too Short	Misread Power Loss/Surge						Other
	П	Ripples in	Bend			Drill Holes	Offset						
		Torque W	/aves in E	xtrusio	n \lceil	Drawing	Г	Out of	Calibration				
		Turning S	equence			Finish		Out of 9	Sequence				
		Wave/Tw	e/Twist in Tube Folio Outside Dimensions										

DQA:

Date:

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87950

Page 2

July-19-12 1:53:27 PM Item ID: D350-636-013 Accept *N900040100* Setup Start Revision ID: Item Name: Skidtube LH Start Date: 19/07/2012 Start Otv: 1.00 Cust Item ID: **Required Date: 02/08/2012** Rea'd Oty: 1.00 Customer: Reference: Run Start Approvals: Process Plan: Date: **Tooling:** Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Set Up/ Tool# Plan Accept Reject Reject Insp. Work Center ID Description **Run Hours** Code Oty **Qty** Nuncer Stamp 110 0.00 Skidtubes *110* Skidtubes 0.00 7 CF 12-7-26 Memo Skidtubes 1- Pick D2600-3 Bent 2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750 3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr. 4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade 5- Drill only two fwd step holes using DT9616. Ensure proper positioning. 6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-3 details). Drill using drill Jig DT8150 & DT8864A for first side only DT8864B for second side (detail B) 7- Clecko DT8864B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE*** 8- Open up holes for SECTION AW-AW to 0.375" (2 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open holes for ground handling and detail T to 0.500" (8 holes per side) 9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to

10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

0.297".

											DQA:	Date:	*
NCR:	⁄es	/ No				WORK ORDER NON-O	O	VFORM	ANCE / UPDATE	. .		·	•
											QA Closed:	Date:	•
Work Orde	er:					DISPOSITION			AC	GAINST DE	PARTMENT	/PROCESS	•
Part I	•	-		,		Rework Scrap Use-as-is		ľ	Machining Sm	osstube nall Fab inishing	l .	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	Vo.					Work Order Update]		Large Fab Con	nposite		Supplier	
Root				ł	Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Description	1	Date	Verification	QC Inspector
Doc/Data										•			
Equip/Tooling													
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Setup						v.							
Other						•							
Process							1						
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Training													•
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Landi	ng (3ear			سسننو	General	_	<u>.</u>		-	-		-
BendingBend								Grain	•		Ovalized		Pressure/Forced
						BOM/Route	L	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	L_	Cracks			L	Broken/Damaged	L	Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/Unclea	ır 📗	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs		<i>†</i> •		Contamination		Mainte	nance		Part Moved		
		Heat Trea	ıt			Countersink	Mislabeled			Positioned \	Wrong		
		Inspectio	n Strip in	Tube	•	Cut Too Short							

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

July-19-12 1:53:27 PM D350-636-013 item ID: Accept *N900040100* Setup Start **Revision ID:** Item Name: Skidtube LH **Start Date:** 19/07/2012 Start Otv: 1.00 **Cust Item ID: Required Date: 02/08/2012 Rea'd Otv:** 1.00 **Customer:** Reference: Run Process Plan: Date: Tooling: **Approvals:** Date: Stop SPC (Y/N): Date: Date: Sequence ID/ Operation Tool ID Set Up/ Tool # Plan : Accept Reject Reject Insp. Work Center ID Description **Run Hours** Code Qty Qty Number Stamp 11-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per OSI 004 A/R Aluminum Rod batch: M/22130 12-Grind welds flush as per Dwg D2750 120 QC10- Inspect visual per QSI004- ground welds *120* QC⁻ Memo Quality Control 130

QC5- Inspect part completeness to step on W/O

0.00

130

QC

Memo

0.00

Quality Control

NCR: Y	'es	/ No				WORK ORDER NON	-co	NFORM	MANCE / UPE	DATE		• •			
_											(QA Closed:	Da	te:	•
Work Orde	er:					DISPOSITION				AGAINST [DEP	PARTMENT	PROCESS		•
Part N	- ا. lo.					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other
Root Cause		Date	Ston	Otu	1	ption of work order update or Non-conformance	- 1	Initial hief Eng	Act	ion iption		Sign & Date	Verificatio		OC Increator
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved		Date	Step	Qty		of Non-comormance		mer Eng	Descr	iption		Date	vernicatio		QC Inspector
							FAU	LT CATE	GORY						
Landir	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Bend BoM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes						⊣ '	on Incomplete ions Incomplete/Unance led	Jnclear		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

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87950

Page 4

July-12-12 1:53:27 PM D350-636-013 Item ID: Accept *N900040100* Setup Start Revision ID: Item Name: Skidtube LH **Start Date:** 19/07/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 02/08/2012 Req'd Qty: 1.00 **Customer:** Reference: Start Run Process Plan: Date: Approvals: Tooling: Date: Stop Date: ____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject insp. **Work Center ID** Description Qty **Run Hours** Code Qty Number Stamp 140 Chemical Conversion Coat per QSI005 4.1 0.00 *140* HandFinish 0.00 Memo Hand Finishing 150 QC7-Inspect Chemical Conversion Coat 0.00 *150* QC 0.00 Memo Quality Control

NCR:	Yes	/ No

									\ \	-		. <u>6</u> T			
										DQA:	Date:				
NCR: Y	es / No				WORK ORDER NON-C	CON	FORN	/ANCE / UP	DATE	·					
										QA Closed:	Date:				
Work Orde	ır.				DISPOSITION				AGAINST D	EPARTMENT	PROCESS				
Work Orac					Rework	1		Skid-tube	Crosstube	T	Water Jet	Engineering			
Part N	0.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality			
					Use-as-is]	Therm	oforming	Finishing	Rec/Stor	e/Packaging	Other			
NCR N	0				Work Order Update]		Large Fab	Composite		Supplier				
Root				Descri	ption of work order update	ln	itial	Ac	tion	Sign &					
Cause	Date	Step	Qty		or Non-conformance	Chie	ef Eng	Desc	ription	Date	Verification	QC Inspector			
Doc/Data															
Equip/Tooling											:				
Operator					•										
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Process	_														
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Unapproved						<u> </u>			 						
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Landin F	ng Gear			<u></u>	General	\Box			_	¬	_	7			
	Bending	_			Bend	\vdash	Grain		<u> </u>	Ovalized		Pressure/Forced			
-	Centre N	ot Conce	ntric to (^{D/S} _	BOM/Route	\vdash	Hardwa		-	Over/Under		Temperature/Cure			
	Cracks			<u> </u>	Broken/Damaged	\vdash	•	on Incomplete	. -	Part Incorre	}	Weld			
	Crushed/Crimped. Burrs							ions Incomplete/	/Unclear	Part Lost/Mi	issing	Wrong Stock Pulled			
ļ	Cuffs		<u> </u>	Contamination	-	Mainte			Part Moved						
1	Heat Trea		<u> </u>	Countersink	\vdash	Mislabe			Positioned V	· · ·	7				
1	Inspection Strip in Tube Cut Too Short					1	Misread	I		Power Loss/	Surge	Other			
Ļ	Ripples in Bend Drill Holes						Offset								
L	Torque W			`	Drawing	\vdash		Calibration							
Ĺ	Turning S	Sequence	!		Finish	Щ	Out of S	equence							
i	Wave/Tu	vist in Tul	he	1	Folio	1 1	Outsida	Dimensions							

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Item ID: Revision ID:	D350-636-01	13		A	Accept	*N900	0040	100)*	Setup Stai	¹ *N	S1*
Item Name:	Skidtube LH	10 m								Sto	*N	S2*
Start Date:	19/07/2012	Start Qty: 1.00	*	1*		Cust Item	ID:					. ,,
Required Date:	02/08/2012	Req'd Qty: 1.00	*	1*		Customer	:					
Reference:				-								
Approvals:	Process Pla	n:	Date:		Tooling:		Date:			Run Stai	" \	R1*
	QC:		Date:		SPC (Y/N):	E	Date:			Sto	*N	R2*
Sequence ID/ Work Center II)	Operation Description			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160					0.00				- •	•		•
160 Skidtubes		Skidtubes Memo			0.00							
Skidtubes			oles section AW	-AW 0.500'	(4 per side) as per dwg	D2750 \						
		side Detail A	V-AV) as per dv	wg D2750.	handling to 0.625" (total				5		(
		4-Chamfer he instructions of		.W-AW, AV	Y-AV, T and ground hand	lling. (welding		đ	\$	12/057/	30.	
· ·			I blow out all change as required.	ips from ins	ide of tube. Prepare tube	for welding,				/		
			D2739 in place aftex-291 b	as per QSI 0 atch: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	230, 1	$>$ S ℓ	30 k	1-0	· フー <i>3</i>	36		
`		(welding inst	ers D3490-1, D3 ructions on shee num Rod batch	t 10)	D2743 as per dwg D2750	0 & QS1004			. , ,			
			ls flush as per D	•		(€Bt	Eph	7/2/	÷		
		9-Spot face g	ground handling	holes (total	of 4 places per side) as p	per dwg D2750	500	1000		2		
•		10-Deburr ho	oles		•	2	\mathcal{L}					

										DQA:	Date:	•
NCR:	es / No				WORK ORDER NON-C	ONF	ORN	MANCE / UPDATE		QA Closed:	 Date:	,
Work Orde	ar:				DISPOSITION			AGAINST	DE	PARTMENT/		
Part N	No				Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite				Prod Rec/Stor	Engineering Quality Other		
Root				Descri	ption of work order update	Init	ial	Action		Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief	Eng	Description		Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator								i				
Material												
Setup												
Other							.					
Process				•			`					
Supplier						Ì						
Training		Ì							•			
Unapproved												
					F	AULT (CATE	GORY				
Landi	ng Gear				General			. ,		_		_
	Bending				Bend	Gr	rain			Ovalized		Pressure/Forced
	Centre N	ot Concei	ntric to (o/s	BOM/Route	На	ardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Ins	specti	on Incomplete		Part Incorred	t 🗀	Weld
	Crushed/Crimped Burrs					Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock P				Wrong Stock Pulled		
	Cuffs				Contamination	Maintenance				Part Moved		•

Mislabeled

Out of Calibration
Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

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July-19-12 1:53:27 PM

Required Date: 02/08/2012

Item ID:

D350-636-013

Accept

N900040100

Setup Start

Item Name: **Start Date:**

Revision ID:

Skidtube LH 19/07/2012

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: Date: Tooling:

Date:

Total ID

Run

QC:

Date:

Operation

Description

SPC (Y/N):

Date:

Stop

Sequence ID/ **Work Center ID**

170

170

Quality Control

QC10- Inspect visual per QSI004- ground welds

QC5- Inspect part completeness to step on W/O

Set Up/ **Run Hours**

Tool # Plan Code Accept Qty

Reject Qty

Reject Insp. Number Stamp

Memo

180

QC Quality Control

Memo

0.00

0.00

190

Pressure Wash per QSI005 4.3

0.00

190 HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

										DQA:	Date:	• .	
NCR: Y	'es	/ No				WORK ORDER NON-C	CONFOR	MANCE / UP		QA Closed:	Date:	•	
Work Orde	er:					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	•	
Part N	-					Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Prod. Eng. Cooras-is Thermoforming Finishing Rec/Store/Packaging						
Root					Descri	tion of work order update	Initial	Ac	tion	Sign &			
Cause		Date	Step	Qty	,	or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data	T												
Equip/Tooling													
Operator													
Material													
Setup							٠ ټ						
Other	\Box						3.						
Process							`						

FAULT CATEGORY Landing Gear General Bending Bend Grain Ovalized Pressure/Forced Centre Not Concentric to O/S BOM/Route Hardware Temperature/Cure Over/Under tolerance Cracks Broken/Damaged Inspection Incomplete Weld Part Incorrect Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Countersink Mislabeled Positioned Wrong Heat Treat Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Folio Wave/Twist in Tube Outside Dimensions

Supplier Training Unapproved

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. Work Orde July-19-12 1:53		950		*879	950*				Page 7
Item ID: Revision ID: Item Name:	D350-636-0 Skidtube LH	13		Accept	*N900	04010)* Setu	p Start	*NS1*
Start Date: Required Date: Reference:	19/07/2012 02/08/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	ID:			14.57
Approvals:	Process Pla	n:	Date:	Tooling:	D:	ate:	Run		*NR1*
	QC:	A	Date:	SPC (Y/N):	Da	ate:		Stop	*NR2*
Sequence ID/ Work Center II 200 *200* Powdercoat)	Operation Description White Gloss(Ref.4.3.5.1)	per QSI005 4.3-Alum	Set Up/ Run Hours 0.00	Tool ID	Tool # Plan Code			Reject Insp. Number Stamp 12/08/04,
Powder Coating		START TIM	IPERATURE: 720°F		~121481				
²¹⁰ *210*		QC3- Inspect Part Finish		0.00		\$	1641	·	Il alogli
QC Quality Control		Memo Inspect for fo	oreign object per QSI 024	0.00			<u> </u>	-	200011
220				0.00					4
220 HandFinish		HandFinishing Memo		0.00			164		M. 12/08/11

1-Install inserts as per dwg D2750

Hand Finishing

											DQA:	Date:	•
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	AANCE / UPDA	ΤE	•		
		·									QA Closed:	Date:	
Work Ord	er.					DISPOSITION				AGAINST DEI	PARTMENT	PROCESS	
Part I	No.					Rework Scrap Use-as-is Work Order Update		t Therm	Machining Solution Sol	Crosstube Small Fab Finishing omposite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Descripti	on	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
							AUI	LT CATE	GORY	···············			
Landi	Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube				General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread	on Incomplete ions Incomplete/Uncl nance led		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
ŀ	1 1	kibbies iu	sena		1	Intil Holes	1	Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

July-19-12 1:53:27 PM

Item ID: Revision ID: Item Name:	D350-636-0 Skidtube LH	13		Accept	*N900	040	100)* s	Setup Sta	ı,	JS1*
Start Date: Required Date: Reference:	19/07/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item II Customer:	D:				Г	NS/"
Approvals:	Process Pla	in:	Date:	Tooling:	Da	te:		F	Run Sta	"	JR1*
	QC:		Date:	SPC (Y/N):	Da	te:			Ste	op *	JR2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool II)	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Numbe	Insp. er Stamp
230 HandFinish		HandFinishing Memo		0.00				<u> </u>	4	M &	10865
		2-Spray insi 3-Install bla per dwg D2' SIKA FLEX BATCH: EXP DATE 4-assemble of A/R 55-o'rice	750 241 11(122500 13(03) D'ring to plug as per dwg ng lube batch: ///	earshoes and ground handling D3492 and apply o'ring lube			ي.				
240 * ? 4 \^ QC Quality Control		QC5- Inspect part compl	eteness to step on W/O	0.00		OAS NO	50(1)				

											DQA:	Date:	•
NCR:	/es	/ No				WORK ORDER NON-C	100	NFORM	MANCE / UP	DATE	·		,
											QA Closed:	Date:	
Work Orde	or.					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	•
VVOIN OTAN	٠,,					Rework]		Skid-tube	Crosstube	7 .	Water Jet	Engineering
Part i	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is	1 1		noforming	Finishing	╡	e/Packaging	Other
NCR i	۷o.					Work Order Update	1		Large Fab	Composite	1	Supplier	
Root					Descri	ption of work order update	1	nitial	Ac	ction	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													•
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Unapproved						·							
						F	AUL	T CATE	GORY				
Landi	ng (Gear				General		-		· _	_		•
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	L	Cracks				Broken/Damaged		Inspect	ion Incomplete		Part Incorre	ct	Weld
1		Crushed/	Crimped.			Burrs		Instruct	tions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

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Work (Order ID	87950
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July-19-12 1:53	2:27 PM			Ω/:	4:50			*		rage 9
Item ID: Revision ID: Item Name:	D350-636-0 Skidtube LH	13 .		Accept	*N900	040	100)*	Setup Star	1112
Start Date: Required Date: Reference:	19/07/2012 02/08/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:					NG/
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):		Pate:	·- ·· ·	j	Run Star Stop	"NR1"
Sequence 15/ Work Center II 250 *250* Packaging Packaging)	Operation Description Pick Kit Memo		Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Insp. Number Stamp
260 *260* QC Quality Control	ė	QC4- 100% Inspect kits Memo	for completeness	0.00 (DAC)	Islanti					
270 *270* Packaging Packaging		Packaging Memo	ner PPP D350-636-013	0.00	eo L				·	12/8/2/3

'es	/ No				WORK ORDER NON-C	100	VFORI\	MANCE / UPDATE		•		
			÷							QA Closed:	Date	
er:					DISPOSITION			AGAINST	T DE	PARTMENT	PROCESS	
- - lo. - lo.					Rework Scrap Use-as-is Work Order Update		Therm	Machining Small Fabre Small Fa		1		Engineering Quality Other
				Descri	ption of work order update	1	Initial	Action		Sign &		
\perp	Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
									-			
						AUL	T CATE	GORY				
	Bending Centre No Cracks Crushed/O Cuffs Heat Trea	Crimped. t		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		Inspecti Instruct Mainte Mislabe	on Incomplete ions Incomplete/Unclear nance led		Part Incorred Part Lost/Mi Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	lo.	Date Date Bending Centre No Cracks Crushed/O Cuffs Heat Trea	Date Step Date Step Date Step Date Cracks Crushed/Crimped Cuffs Heat Treat	Date Step Qty Date Step Qty Bending Centre Not Concentric to Cracks Crushed/Crimped. Cuffs	Date Step Qty Descri Date Step Qty Descri Date Step Qty Contre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat	DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update or Non-conformance Fing Gear General Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Burrs Cuffs Contamination Countersink	Processor Disposition	Therm Disposition Rework Scrap Use-as-is Work Order Update Initial	DISPOSITION Rework Scrap Use-as-is Work Order Update Use-as-is Composite Date Step Qty Description of work order update or Non-conformance Chief Eng Description FAULT CATEGORY General Bending General Bom/Route Centre Not Concentric to O/S Cracks Broken/Damaged Crushed/Crimped Crushed/Crimped Cuffs Contamination Countersink Maintenance Mislabeled DISPOSITION AGAINST Skid-tube Crosstube Machining Small Fat Crosstube Machining Small Fat Crosstube Machining Small Fat Crosstube Machining Small Fat Crosstube Machining Small Fat Composite Machining Small Fat Composite Machining Com	DISPOSITION Rework Scrap Use-as-is Work Order Update Large Fab Composite Date Step Qty Description of work order update Chief Eng Description Date Step Qty Order Chief Eng Description Date Step Qty Order Chief Eng Description Date Step Qty Order Chief Eng Description FAULT CATEGORY Tag Gear General Bending General Hardware Hardware Inspection Inspection Date Step General Hardware Inspection Inspection Date Step Qty Order Inspection Inspection Incomplete Control Not Concentric to O/S Broken/Damaged Inspection Incomplete Cracks Cracks Broken/Damaged Instructions Incomplete Crushed/Crimped Contamination Maintenance Heat Treat Countersink Mislabeled Date Skid-tube Crosstube Countersink Co	DISPOSITION Rework Scrap Use-as-is Work Order Update Or Non-conformance Date Step Oty Or Non-conformance Chief Eng Description Date	DISPOSITION Rework Scrap Use-as-is Work Order Update Date Date Step Qty Description of work order update or Non-conformance Date FAULT CATEGORY General Bending Centre Not Concentric to O/S Broken/Damaged Crushed/Crimped. Gracks Broken/Damaged Hardware Crushed/Crimped. Grain Sign & Ovalized Over/Under tolerance Part Incorrect Part Inspection Incomplete Crushed/Crimped. Grain Maintenance Part Incorrect Part Inspection Incomplete Purclear Part Lost/Missing Crushed/Crimped. Gunters in Contamination Maintenance Part Incorrect Part Moved Positioned Wrong Mislabeled Positioned Wrong AGAINST DEPARTMENT/PROCESS Water Jet Water Jet Prod. Eng. Coor. Rec/Store/Packaging Skid-tube Mater Jet Date Prod. Eng. Coor. Rec/Store/Packaging Supplier Composite Skid-tube Mislabeled Positioned Wrong

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

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0.00

Memo

280

Quality Control

MUJ 12/08/23

Insp.

Page 10

											DQA:	Date:	•
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	ANCE / UPDA	TE	•		
											QA Closed:	Date:	
Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part I	٠ ، No					Rework Scrap Use-as-is Work Order Update		Therm	Machining noforming	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root		·			Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descript	ion	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved			·						٠.				
						· · · · · · · · · · · · · · · · · · ·	AUL	T CATE	GORY				
Landi		Bending Centre No Cracks Crushed/G Cuffs	Crimped.		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination		Instruct Mainte	on Incomplete ions Incomplete/Unc nance		Ovalized Over/Under Part Incorred Part Lost/Mi	ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	\vdash	Heat Trea		Tubo	ļ	Countersink Cut Too Short	\vdash	Mislabe Misread		_	Positioned V Power Loss/	· -	Other
	-	Ripples in		TUDE		Drill Holes	\vdash	Offset	ı		I ower ross/	Juige	Touter

Out of Calibration

Outside Dimensions

Out of Sequence

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish.

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Picklist Print

· July-19-12 1:53:31 PM

Work Order ID: 87950

7. 67930

D350-636-013

Parent Item Name: Skidtube LH

87950

D350-636-013

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

Parent Item:

IPP Rev:H02.09.25Rearranged procedure steps KJ

IPP rev I 06.03.30 Per rev. D dwg

Per rev. D dwg EC

IPP Rev:J 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC IPP Rev:K 08-09-23 revF as per dwg DD verified by:ec IPP Rev:L 10.06.22 revise seq110 DD verf:EC IPP Rev:M 10.10.01 as

ner IIN revH_DD_verf EC

ŗ	er IIN revH DD v	err:EC											
/	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
		Manufactured	No			110	Each	26.0000		1	; —		

D2600-3-RENT*

Extrusion Bent

D2600-3-BENT

Item Name

Component Item ID/

		**	1 (1/2.1/26
<u>Location</u>	Loc Oty	Loc Code	•
LG	26		
66875	7		
73253	1		
75021	1		
75022	1		
75023	. 1		
81330	4		
83305	1		
86330	10		
	110 Each	83.0000	$\frac{2}{2}$

**

*D3493-1

Manufactured No

 Location
 Loc Oty
 Loc Code

 ST050
 83

 77573
 1

 82023
 2

 83097
 80

2

1.

										DQA:	Date:		
NCR:	⁄es	/ No				WORK ORDER NON-C	O	NFORM	MANCE / UP	DATE	QA Closed:	Date:	•
ſ						· · · · · · · · · · · · · · · · · · ·	1			· · · · · · · · · · · · · · · · · · ·	QA Closed.	Date.	<u> </u>
Work Orde	٥r٠					DISPOSITION	ı			AGAINST DE	PARTMENT	/PROCESS	
Part f	No.					Rework Scrap Use-as-is		f Therm	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	-1	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	NO.					Work Order Update			Large Fab	Composite		Supplier	لــا
Root					Descri	ption of work order update	1	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material													
Setup													
Other													
Process													
Supplier													
Training						•							
Unapproved					<u> </u>				<u> </u>				<u> </u>
							AUL	T CATE	GORY				· · · · · · · · · · · · · · · · · · ·
Landi	_	1				General		l c		_	٦	Г	7
	\vdash	Bending			0/5	Bend BOM/Bouts	-	Grain		ļ	Ovalized		Pressure/Forced
	\vdash	Centre No Cracks	ot Concer	itric to	^{0/3} -	BOM/Route Broken/Damaged	-	Hardwa		-	Over/Under Part Incorre		Temperature/Cure Weld
	_	Crushed/	rimnad	~	-	Burrs	\vdash	1	on Incomplete ions Incomplete/	Unclear	Part Lost/M	<u> </u>	Wrong Stock Pulled
	-	Cuffs	cimpea.	•	\vdash	Contamination	-	Mainte	-	- Criciear	Part Moved		J W to lig Stock Fulled
	\vdash	Heat Trea	t		-	Countersink	\vdash	Mislabe		-	Positioned \		
	-	Inspection		Tube		Cut Too Short		Misread		 	Power Loss	_	Other
	П	Ripples in			<u> </u>	Drill Holes		Offset	-	_	٦. ٥.٠٠٥٠ د ١٥٥٥٠		123
	П	Torque W		xtrusio	n	Drawing		4	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

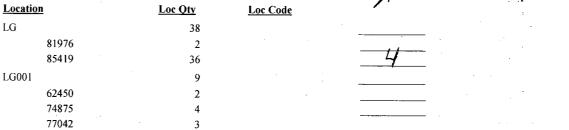
Wave/Twist in Tube

Finish

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· July-19-12 1:53:31 PM

Work Order ID: 87950 *87950* Parent Item: D350-636-013 *D350-636-013* Parent Item Name: Skidtube LH **Start Date:** 19/07/2012 **Required Date:** 02/08/2012 Start Qty: 1.00 Required Qty: 1.00 D2739 Manufactured 160 Each 15.0000 *D2739* ** 350 I Beam Location Loc Qty Loc Code LG 15 72155 81508 83448 83548 85486 85487 86437 2 D2744 Manufactured 160 Each 88013 52.0000 *D2744* ** Lecation Loc Qty Loc Code LG002 52 62715 1 83412 13 85506 38 D3490-1 Manufactured No 160 47.0000 Each ** Cross Bolt Spacer Location Loc Qty Loc Code LG 38



NCR:	Yes	/	No
		,	

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

NCR. 1	es / No				WORK ORDER WORK	CONTO	WINITEL / OF		QA Closed:	, Date	: · ·
Work Orde	r:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap		Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	lo	· ·			Use-as-is Work Order Update] The	rmoforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty	1	or Non-conformance	Chief Er	g Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material											
Setup											
Other	_										
Process						İ					
Supplier	_										
Training		1								•	
Unapproved		<u> </u>	<u> </u>			AULT CA	TECORY				
Landir	ng Gear	-			r General	AULICA	EGONT				
	Bending				Bend	Grain	1	Г	Ovalized	Γ	Pressure/Forced
•	Centre No	ot Conce	ntric to (_{2/5}	BOM/Route	Hard			Over/Under	tolerance	Temperature/Cure
}	Cracks	00		-,,, -	Broken/Damaged	\vdash	ction Incomplete		Part Incorre	⊢	Weld
Ì	Crushed/	Crimped.			Burrs	-	ictions incomplete/	'Unclear	Part Lost/M	F-	Wrong Stock Pulled
Ì	Cuffs				Contamination	\blacksquare	itenance	-	Part Moved		
Ī	Heat Trea	at			Countersink	Misla	beled	<u> </u>	Positioned \	V rong	
ļ	Inspectio	n Strip in	Tube		Cut Too Short	Misre	ead		Power Loss/		Other
ľ	Ripples in	n Bend			Drill Holes	Offse	t			_	
Ì	Torque W		xtrusion	, <u> </u>	Drawing	Out	f Calibration				
ľ	Turning S	equence			Finish	Out	of Sequence				
ľ	Wave/Tw	vist in Tul	oe .		Folio	Outs	de Dimensions				

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·July-19-12 1:53:31 PM

Work Order ID: 87950

Parent Item:

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Oty: 1.00

Required Oty: 1.00

D3490-5

Cross Bolt Spacer

D3490-5

Manufactured

160

Each

27.0000

D2743

Manufactured

No

LG001 83373

Location

220

Loc Otv

27 2.7

Each

Loc Code

222.0000

**

**

Crossbolt Spacer

Location Loc Qty LG 148 81965 23 83262 2 85459 123 LG001 74 67766 68251 73403 64 74445 79517 2

Loc Code

WORK ORDER	Yes / No	Yes /	NCR:
DISPOSITIO			

DQA:

NCK:	QA Closed: Date:															
Nork Ord	Vork Order: DISPOSITION AGAINST DEPARTMENT/PROCESS															
Part I	•						Rework Scrap			Skid-tube Crosstube Machining Small Fab			Water Jet	Engineering Quality		
NCR I	No.						Use-as-is Work Order Update	<u> </u>					Rec/Store/Packaging Other Supplier			
Root					Desc	rip	otion of work order update	Initial Action			Sign &					
Cause		Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Descri	iption	Date	Verification	QC Inspector		
oc/Data quip/Tooling perator faterial etup ther rocess upplier raining napproved																
							F.	AUL	LT CATEGORY							
Landi	ng (Gear			-		General					_		_		
	Bending Centre Not Concentric to O/S Bend BOM/Route Broken/Damaged								Grain Hardware Inspection Incomplete			Ovalized Over/Under Part Incorred	rt	Pressure/Forced Temperature/Cure Weld		
	Crushed/Crimped. Burrs Cuffs Contamination							H	Instruct Mainte	ions Incomplete/Unance	Inclear	Part Lost/Mi Part Moved	ssing	Wrong Stock Pulled		
Heat Treat Countersink									Mislabe	led		Positioned V	Vrong			
Inspection Strip in Tube Cut Too Short							Cut Too Short		Misread	I		Power Loss/	Surge	Other		
Ripples in Bend Drill Holes							Drill Holes		Offset							
Torque Waves in Extrusion Drawing							Drawing	Out of Calibration								
Turning Sequence Finish							Finish		Out of S	equence			<u> </u>			
Wave/Twist in Tube							Folio	Г	Outside	Dimensions			<u> </u>			

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*July-19-12 1:53:31 PM

Work Order ID: 87950

Parent Item:

ALS4-1032-225

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

AI S4-1032-225

Insert

Purchased No 230 Each 2,462.000 41/80/s1 LK

<u>Locatio</u>	<u>n</u>	<u>Lo</u>	<u>c Oty</u>	Loc Code				
FP-B			2019					
	122290		2019					
ST281			420			X3 8		
	108696		146					
	110768		62					
	118386		55					
	118966		68					
	121269		89					
ST282			23				*	
	120410		10					
	120451		13					
		230	Each	1,335.000	34	34	•	
				k	*	EK.	Ellanter	

AN3C5A Bolt

AN3C5A

Purchased No

> Loc Qty Location Loc Code FP001 7 115835 7 ST350 1328 116419 28 117343 13 117764

> > 119749 23 120423 28 121255 227 121708 500 122141 500

117872

											DQA:	Date	•
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	AANCE / UPD	ATE			• .
		•							· •		QA Closed:	Date	· ·
Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
Part I	No.					Rework Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Work Order Update Large Fab Composite					4	Water Jet od. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		·			Descri	ption of work order update		Initial	Acti	on	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	nief Eng	Descri	ption	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													·
		·					AUI	LT CATE	GORY				
Land	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat					General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink	Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled			nclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned	ect lissing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	$\overline{}$	Inspection	•	Tube		Cut Too Short	├ ─				Power Loss	/Surge	Other
Ī		Ripples in	Bend			Drill Holes	1	Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

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Work Order ID: 87950

Parent Item:

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

BOLT

AN3C6A

Purchased No 230

Each

751.0000

**

12/08/14

Location	Loc	Oty	Loc Code			
FP001		1				
111982		1				
ST351		750				
111982		2				,
116419	•	23				
116549		2				
116704		12				
117619		10				
117688		1				
117872		5				
118422		13				
119449		21			<u> </u>	
120423		3				
120693	•	112			V 4/	
121682		46				
122416		500				
	230	Each	76.0000	4	4	

AN6C44A

Purchased

No

Location	Loc Qty	Loc Code	
FG	2	1/1122491	X 3
103964	2	11100411	
ST343	74		
121013	11		
121440	13		
122204	50		

NCR:	Yes	/	No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: ___

NCR: Y	QA Closed: Date:												
Work Orde	r.				DISPOSITION		AGAI	NST DEPARTMENT	/PROCESS				
Part N					Rework Scrap		Skid-tube Crosst Machining Small	-	Water Jet d. Eng. Coor.	Engineering Quality			
Taren	····				Use-as-is	-i 1:	moforming Finish	⊢	re/Packaging	Other			
NCR N	lo				Work Order Update] '''e''	Large Fab Compo						
Root				Descri	ption of work order update	Initial	Action	Sign &					
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Description	Date	Verification	QC Inspector			
Doc/Data													
Equip/Tooling						ļ							
Operator													
Material													
Setup		ļ											
Other													
Process													
Supplier					•	- 1		ľ					
Training													
Unapproved		1		i									
					F	AULT CATE	GORY						
Landir	ng Gear				General					_			
	Bending				Bend	Grain		Ovalized		Pressure/Forced			
	Centre No	ot Conce	ntric to (o/s	BOM/Route	Hardw	are	Over/Under	tolerance	Temperature/Cure			
	Cracks		•		Broken/Damaged	Inspec	tion Incomplete	Part Incorre	ct .	Weld			
	Crushed/	Crimped.			Burrs	Instruc	tions Incomplete/Unclear	Part Lost/M	issing	Wrong Stock Pulled			
	Cuffs		•		Contamination	Maint	enance	Part Moved					
[Heat Trea	at		Γ	Countersink	Mislab	eled	Positioned \	Vrong				
	Inspectio	n Strip in	Tube		Cut Too Short	Misrea	nd	Power Loss,	'Surge	Other			
	Ripples in	n Bend			Drill Holes	Offset			_				
	Torque W	Vaves in E	xtrusion	,	Drawing	Out of	Calibration		-				
Ī	Turning S	equence			F-1 - F-1		Sequence						
	Wave/Tw	vist in Tul	oe .		Folio	Outsid							

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· July-19-12 1:53:32 PM

Work Order ID: 87950		*87	7950*		•				
Parent Item: D350-636-013			350-636-01	13*		•			
Parent Item Name: Skidtube LH		. ,.		,			tart Date: Start Qty:	19/07/2012 1.00	Required Date: 02/08/2012 Required Qty: 1.00
AN8C35A BOLT	Purchased	No		230	Each	53.0000	1 **	1 J.J.	12/08/14
		4 1	Location FP002 115960 118286 121275 ST346 114442 115188 115960	<u>Lo</u>	52 1 1 50 1 0	Loc Code	;	X (- - - - -
*AN960C10L NAS1149C0332 R *AN960C10I * * washer	Purchased	No		230	Each	21,0000 77 063	38 **	38 (x38)	1/ 12/08/14
			Location	Loc	e Oty	Loc Code			
			-ST 107534		21 21				
D2745 *D2745* Bushing	Manufactured	No		230	Each	206.0000	8 **	8	12/08/14
			<u>Location</u>	Loc	: Oty	Loc Code			
	j.		FP 79518 85416 FP001 69529 76142 83260		194 6 188 12 1 1			X &	

NICD.	Voc	1	Nio
NCR:	Yes	/	No

DQA: ____ Date: ____

NCR: Ye	es / No				WORK ORDER NON-C	CONF	UKIV	MAINCE / UPI	JA16	QA Closed:	Date	· · ·	
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT/PROCESS			
Part N					Rework Scrap		٨	Skid-tube Machining	Crosstube Small Fab	Water Jet Prod. Eng. Coor.		Engineering Quality	
NCR N	o		•		Use-as-is Work Order Update			oforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other	
Root				Descri	ption of work order update	Initi	ial	Act	ion	Sign &			
Cause	Date	Step	Qty	(or Non-conformance	Chief	hief Eng Description			Date	Verification	QC Inspector	
Doc/Data													
quip/Tooling	_											· [
Operator		1					į						
Material	_						İ		,				
ietup	_						1						
Other	_						İ						
rocess							I						
Supplier	_	1.			f								
raining	_ '												
Inapproved		<u>l</u>				<u> </u>				<u> </u>			
	•					AULT C	ATEC	GORY					
Landin	_				General				_	1	г		
1	Bending			-	Bend	⊢	rain		<u> </u>	Ovalized		Pressure/Forced	
-		ot Concei	ntric to C	D/S	BOM/Route	—	ardwai			Over/Under	-	Temperature/Cure	
L	Cracks			\vdash	Broken/Damaged	\vdash	-	on Incomplete	<u> </u>	Part Incorre	+	Weld	
	⊣	Crimped.		<u> </u>	Burrs	$\boldsymbol{\vdash}$		ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled	
. -	Cuffs			<u> </u>	Contamination	М	ainte	nance		Part Moved			
Ĺ	Heat Tre	at			Countersink	Шмі	islabel	led		Positioned \	Vrong	<u> </u>	
	Inspection	n Strip in	Tube	L	Cut Too Short	Шмі	isread	•		Power Loss/	Surge	Other	
	Ripples in	n Bend			Drill Holes	Of	Offset						
	Torque V	Vaves in E	xtrusion	· [Drawing	Ou	Out of Calibration						
	Turning S	Sequence			Finish	Out of Sequence							
Γ	Wave/Tv	vict in Tuk	10		Teolio		itsida	Dimensions					

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D3492-5

D3492-5

Manufactured

No

Plug

 Loc Qty
 Loc Code

 fpa
 127

 83100 83530
 26 101

230

Each

127.0000

**

X 2 X (a

											DQA:	Date:	•
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFOR	MANCE / UPDATE		•		,
											QA Closed:	Date:	•
Mork Ord	0.51					DISPOSITION			AGAINST	DE	PARTMENT/	PROCESS	
Work Ord	er					Rework	,		Skid-tube Crosstube			Water Jet	Engineering
Part	Nο					Scrap			Machining Small Fab	\vdash	Proc	d. Eng. Coor.	Quality
			· · · · · · · · · · · · · · · · · · ·			Use-as-is		t .	noforming Finishing	_		e/Packaging	Other
NCR	No.					Work Order Update			Large Fab Composite			Supplier	
Root					Descri	ption of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator	Ш		,				1						
Material	Ш						Ì						
Setup													
Other		•											
Process													
Supplier					·				·				
Training			ľ						·				
Unapproved		·											
						F	AUL	T CATE	GORY				
Land	ing G	iear			·	General			•	_	•		-
	Ш	Bending				Bend	L	Grain		L	Ovalized		Pressure/Forced
		Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa	re	L	Over/Under	tolerance	Temperature/Cure
	Ш	Cracks			<u> </u>	Broken/Damaged		Inspect	ion Incomplete		Part Incorred	et	Weld
	Ш	Crushed/	Crimped.			Burrs		Instruct	tions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance	L	Part Moved		
	Heat Treat					Countersink	Mislabeled Positioned Wrong					Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

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· July-19-12 1:53:32 PM

Work Order ID: 87950

Parent Item:

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-25 *D3535-25*

Wearshoe

Manufactured

230

Each

25.0000

Loc Code

12/08/14

FP001 62233 81357 83387 83899 Manufactured

Location

Location

Location

83254 83255

85457

85458

86238

FP002

230

13.0000

**

12/08/14

12/08/14

D3536-25

D3537-1

D3536-25

Wearpad

FP

Manufactured

Loc Qty 13 83900

13 230 Each

Loc Qty

123

3

20

44

55

Loc Qty

25

16

7

Each

Loc Code

123.0000

Loc Code

**

											DQA:	Date.	•
NCR:	Yes .	/ No				WORK ORDER NON-C	QA Closed:	Date:					
Work Ord	er.					DISPOSITION			AGAINST D	DEI	PARTMENT/	PROCESS	
Part I	No		•			Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite						Water Jet J. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	ı	nitial	Action	٦	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	П												
Operator	П								•				
Material	П						1			1			
Setup	П												
Other	П	•											
Process	П												
Supplier	П				·	•		•					
Training									•				
Unapproved													
						F/	AUL	T CATE	GORY				
Landi	ing Ge	ear				General			_	-	_		-
	L	Bending				Bend	L	Grain			Ovalized		Pressure/Forced
	Centre Not Concentric to O/S					BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks					Broken/Damaged		Inspecti	on Incomplete		Part Incorred	ct	Weld
		crushed/	Crimped.			Burrs		Instructions Incomplete/Unclear			Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs		٠		Contamination		Maintenance			Part Moved		
	Heat Treat					Countersink	Mislabeled				Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

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· July-19-12 1:53:32 PM

Work Order ID: 87950 *87950* Parent Item: D350-636-013 *D350-636-013* Parent Item Name: Skidtube LH Start Date: 19/07/2012 **Required Date:** 02/08/2012 Start Qty: 1.00 Required Qty: 1.00 D3631-1 Manufactured 230 227.0000 Each *D3631-1* ** 12/08/14 Location Loc Qty Loc Code FG 212 81874 2 83588 210 ST072 , 15 68062 2 75548 13 D3791-1 Manufactured 230 Each 19.0000 *D3791-1* ** 12/08/14 Wearplate Location Loc Qty Loc Code FP002 62239 83392 6 83902 11 D3793-1 Manufactured No 230 Each 31.0000 *D3793-1* ** 12/08/14

> Location Loc Qty Loc Code FP001 31 82171 2 83393 83903 13 87273 12 .

Wearshoe

		,	
NCR:	Yes	/	No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: ____

NCK: Y	es / No				WORK ORDER NON-		MINIMITEL / OF	DAIL	QA Closed:	Date:	•
Work Orde	or.				DISPOSITION			AGAINST DE	PARTMENT	PROCESS	•
	lo.				Rework Scrap		Skid-tube Machining	Crosstube Small Fab	Water Jet Prod. Eng. Coor.		Engineering Quality
NCR N		,			Use-as-is Work Order Update	Th	ermoforming Large Fab	Finishing Composite	Rec/Store/Packaging Other Supplier		
Root				Descr	ription of work order update	Initia	ıl A	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief E	ing Des	cription	Date	Verification	QC Inspector
Doc/Data			,								
Equip/Tooling											
Operator											
Material											
Setup						'					
Other						1			.		
Process	'		'			Ì	·				
Supplier									-		
Training											
Unapproved		J	<u> </u>				75000				
				······································	· · · · · · · · · · · · · · · · · · ·	FAULT CA	ATEGORY				
Landii	ng Gear			Г	General		:	Γ-	Ovalized	Γ	Pressure/Forced
	Bending			~,	Bend	Gra		ļ	-4	1 -1	Temperature/Cure
	Centre N	ot Conce	ntric to	U/S -	BOM/Route Broken/Damaged	\vdash	dware	-	Over/Under Part Incorre		Weld
	Cracks	/C=:========		-	Burrs	—	ection Incomplete ructions Incomplete	/Unclose	Part Lost/M	<u> </u>	Wrong Stock Pulled
	Crushed/ Cuffs	сппреа	-	-	Contamination	—	ructions incomplete intenance	:/ Officieal	Part Moved		TANIOUR STOCK Lauled
				-	=	\vdash	labeled	-	Positioned \		
Heat Treat Countersink Inspection Strip in Tube Cut Too Short					├ ─-	read .	-	Power Loss	· -	Other	
		•	iube	-	Drill Holes	Offs		L	Trower ross	onige [Totilei
Ripples in Bend Drill Holes Torque Waves in Extrusion Drawing							set of Calibration				
	Wave/Tw			H	Finish Folio	Out of Sequence Outside Dimensions					
	I IVVAVE/IV	viatifi (U	uc		II OIO	i iout	コロモ レルリピけいしけい	a contract of			

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Required Date: 02/08/2012

Required Qty: 1.00

uleolsi

12/08/14

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Work Order ID: 87950 *87950* Parent Item: D350-636-013 *D350-636-013* Parent Item Name: Skidtube LH **Start Date:** 19/07/2012 Start Qty: 1.00 D3793-3 Manufactured 230 Each 34.0000 *D3793-3* Ml 12/08/14 ** Location Loc Qty Loc Code FP001 34

Manufactured

Manufactured

No

83394

D3794-1 *D3794-1*

D3794-3 Gasket

83901 87135 12 230 Each 17.0000 ** Location Loc Qty Loc Code FP002 17

10

12

83395 17 230 Each 38.0000

**

Location Loc Qty Loc Code FP 12 83396 12 FP002 26 74530 2 86243 24

NCR:	Yes	/ No
	,	

DQA: Date:

NCR: Y	R: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date:											
Work Orde	ır.				DISPOSITION			AGAINST DE	PARTMENT,	/PROCESS		
Part N					Rework Scrap		Skid-tube Crosstube Machining Small Fab			Water Jet d. Eng. Coor	Engineering Quality	
NCR N	lo		Use-as-is Thermoforming Work Order Update Large Fat					FinishingComposite	Rec/Stoi	re/Packaging Supplier	Other	
Root				Descri	ption of work order update	Initial	Ad	ction	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator	_											
Material		1	,									
Setup	′											
Other								•	<u> </u>			
Process							1					
Supplier Training	-											
Unapproved	\dashv											
onapproved 1		L	,		F	AULT CATE	GORY		<u> </u>	L		
Landir	ng Gear				General							
	Bending				Bend	Grain			Ovalized	Γ	Pressure/Forced	
Ì	Centre No	ot Conce	ntric to (o/s	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure	
	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorre	ct	Weld	
	Crushed/Crimped. Burrs					Instruc	tions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled	
	Cuffs				Contamination	Maint	enance		Part Moved	_	_	
Heat Treat Countersink						Mislab	eled		Positioned \	Wrong		
Inspection Strip in Tube Cut Too Short						Misrea	d		Power Loss/	'Surge	Other	
Ripples in Bend Drill Holes						Offset						
	Torque W			n L	Drawing	Out of Calibration						
	Turning S	equence			Finish	Out of	Sequence					
Wave/Twist in Tube Folio							Outside Dimensions					

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Work Order ID: 87950

Parent Item:

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

MS21043-6 *MS21043-6*

Purchased

Purchased

No

230

Each 558.0000

**

12/08/14

Location		Lo	<u>e Qty</u>	Loc Code
FG			20	
	103693		20	
ST301			538	
	117887		.2	
	118384		36	
	120308		500	
·		230	Each	72.0000

MS21083C8 *MS21083C8*

No

72.0000

**

Locatio	<u>on</u>	Loc Oty	Loc Code
304		17	
	121185	14	
	121349	3	
FP002		1	
	115884	Ī	
ST303		4	
	115884	0	
	118077	1	
	119309	2	
	119638	1	
ST321		50	

July-19-12 1:53:32 PM

122141

NCR:														
												QA Closed:	Date:	,
Nork Ord	er:						DISPOSITION	1				PARTMENT/		
Part I	No.						Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing	-1	Water Jet J. Eng. Coor. e/Packaging	Engineering Quality Other
NCR No. Work Ord					Work Order Update			Large Fab	Composite]	Supplier			
Root Description of work order updat					tion of work order update	Ī	nitial	Act	ion	Sign &				
Cause		Date Step Qty or		r Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector			
oc/Data														
quip/Tooling														
perator														
1aterial														
etup										4				
ther	L													
rocess		•						Ì						
upplier			,											
raining	*				i									
napproved										·				
							F/	AUL	T CATE	GORY				
Landi	ng (Gear			_		General		_			_		
		Bending				,	Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s		BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	П	Cracks			Γ		Broken/Damaged		Inspect	ion Incomplete		Part Incorred	t T	Weld
	Г	Crushed/0	Crimped.				Burrs		Instruct	ions Incomplete/L	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Γ	Cuffs			ľ		Contamination	П	Mainte	enance		Part Moved		•
	Heat Treat Countersink								Mislabe	eled		Positioned V	Vrong	
		Inspection	n Strip in	Tube	ľ		Cut Too Short		Misread	i ·		Power Loss/	Surge	Other
	Г	Ripples in	Bend		Ī		Drill Holes	Г	Offset		L	_		
	Г	Torque W	aves in E	xtrusio	n İ		Drawing		Out of	Calibration				
		Turning S	equence		t		Finish		Out of	Sequence				
	Wave/Twist in Tube Folio Outside Dimensions													

DQA:

Date:

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Work Order ID: 87950 *87950* Parent Item: D350-636-013 *D350-636-013* Parent Item Name: Skidtube LH Start Date: 19/07/2012 Required Date: 02/08/2012 Start Qty: 1.00 Required Qty: 1.00 NAS1149C0832R Purchased No 230 Each 442.0000 *NAS1149C0832R* 11 1208/14 ** Location Loc Qty Loc Code 296 200 122441 200 ST297 242 114915 242 NAS1515H3L Purchased No 230 Each 307.0000 *NAS1515H3L* ** WASHER Location Loc Qty Loc Codé FG 102472 40 ST277 267 118686 3 120360 11 121556 53 122151 200 NAS1611-005 Purchased No 230 Each 260.0000 *NAS1611-005* ** 17/08/ O-RING Location Loc Oty Loc Code FP 128 122441 128 FP001 132 106099 18 114220 38

36

40

119438

121415

										DQA:	Date:	
NCR:	es / No				WORK ORDER NON-O	100	VFORM	MANCE / UPDAT	TE	·		•
							,			QA Closed:	Date:	•
Manle Onde					DISPOSITION				AGAINST DEF	PARTMENT	PROCESS	_
Work Orde	er:				Rework			Skid-tube C	Crosstube		Water Jet	Engineering
Part N	lo.				Scrap Machining Small Fab)i	Prod. Eng. Coor. Quality		
Paili	····					Use-as-is Thermoforming Finishing					e/Packaging	Other
NCR 1	No				Work Order Update				тЩ	1100,500	Supplier	
110111		*			Troncorder opadie	J		20.80 10.5	opos.to			ا
Root		Ţ		Descri	ption of work order update		Initial	Action		Sign &		
Cause	Date	Step	Qty		or Non-conformance	Cr	nief Eng	Description	on	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator								*				
Material												
Setup	,	į									11	
Other												
Process									·			
Supplier												
Training												
Unapproved	l					<u></u>						
					······································	AUI	LT CATE	GORY				
Landi	ng Gear		•	r	General		1			1	F	1
	Bending				Bend		Grain		 	Ovalized	_	Pressure/Forced
	 	Not Conce	ntric to	O/S	BOM/Route	-	Hardwa		<u> </u>	Over/Under	-	Temperature/Cure
	Cracks			 	Broken/Damaged	 	4 '	ion incomplete	ļ	Part Incorre	}	Weld
		/Crimped		<u> </u>	Burrs	\vdash	4	ions Incomplete/Uncl	<u></u>	Part Lost/M	ssing	Wrong Stock Pulled
j l	Cuffs				IContamination	1	Mainte	enance	ŀ	Part Moved		

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

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Picklist Print

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Work Order ID: 87950

Parent Item:

NAS1611-010

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

O-RING

Purchased No 230

**

360.0000

Each

Location	Loc	<u>Qtv</u>	Loc Code				
FP001		360					
110915		14					
117460		8					
118077		1					
118612	•	3				**************************************	
119438		47					
121259		2					
121584		2					
121723		15					
122151		268			X &		
	250	Each	63.0000	2	2 ^		
			ל	**			

AN8C21A *AN8C21A*

Purchased

Manufactured

No

No

Location Loc Qty Loc Code ST343 63 118758 3 121275 10 122204 50 250 Each 22.0000

**

Location Loc Code Loc Oty ST -10 ST466 32 71856 1 83135 21

Blade, 350 Skidtube

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Shop Packet Print

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									DQA:	Date:	\$
NCR: Y	'es	/ No			WORK ORDER NON-	CONFOR	MANCE / UI		QA Closed:	Date:	•
Work Orde	er:				DISPOSITION			AGAINST DEI	PARTMENT	/PROCESS	
Part N	 lo			-	Rework Scrap Use-as-is Work Order Update	- I	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root	Т	Description of work order update Initial Action									
Cause		Date	Step	Qty	or Non-conformance	Chief Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data											
quip/Tooling											
Operator											
Material]
ietup [
Other											
rocess				,							
Supplier											
raining											
Jnapproved					·						
				·		AULT CATE	GORY				
Landir	ng G	ear			General						

Bending Bend Grain Ovalized Pressure/Forced BOM/Route Temperature/Cure Centre Not Concentric to O/S Over/Under tolerance Hardware Part Incorrect Cracks Broken/Damaged Weld Inspection Incomplete Crushed/Crimped. Wrong Stock Pulled Burrs Instructions Incomplete/Unclear Part Lost/Missing Cuffs Maintenance Part Moved Contamination Positioned Wrong Heat Treat Countersink Mislabeled Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Drill Holes Offset Ripples in Bend Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Wave/Twist in Tube Folio Outside Dimensions

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·July-19-12 1:53:33 PM

Work Order ID: 87950

Parent Item:

D350-636-013

Parent Item Name: Skidtube LH

87950 *D350-636-013*

Start Date: 19/07/2012

Required Date: 02/08/2012

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

MS21083C8

Purchased

250

Each

72.0000

M122452

Location	Loc Qty	Loc Code
304	17	
121185	14	
121349	3	
FP002	1	
115884	1	:
ST303	4	
115884	0	
118077	1	
119309	2	
119638	1	
ST321	50	
122141	50	
	250 Each	207.0000 2 2
	•	** 12/8/22

Purchased AS1149D0863.J*

No

Location Loc Qty ST298 207 118078 34 .119307 120308 72 121356 100 Loc Code

									•		DQA:	Date	
NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	ANCE / UPDA	\TE			b
											QA Closed:	Date	: ·,
Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
WORK OTC	.					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part I	۷o.					Scrap Machining Small Fab			•	d. Eng. Coor.	Quality		
						Use-as-is Thermoforming Finishing			Rec/Sto	re/Packaging	Other		
NCR No.						Work Order Update]		Large Fab	Composite		Supplier	
Root					Descri	ption of work order update	П	nitial	Action	n	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descript	tion	Date	Verification	QC Inspector
Doc/Data												1	
Equip/Tooling													
Operator													
Material													
Setup													
Other	L												
Process													
Supplier	L]					ĺ		•				
Training													
Unapproved							<u> </u>						
						F.	AUL	T CATE	GORY				
Landi	ng (7				General	_	7			7	-	 1
Bending						Bend		Grain			Ovalized	<u> </u> _	Pressure/Forced
	L	Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa			Over/Unde	r tolerance	Temperature/Cure
						Broken/Damaged		4	on Incomplete		Part Incorre	<u> </u>	Weld
Crushed/Crimped.						Burrs		4	ions Incomplete/Unc	clear	Part Lost/N	lissing	Wrong Stock Pulled
Cuffs						Contamination		Mainte	nance		Part Moved	l	
	L	Heat Trea	it			Countersink		Mislabe	led		Positioned	Wrong _	_
	Inspection Strip in Tube Cut Too Short							Misread			Power Loss	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

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QTY | QTY -042 | -043 QTY -044 PART NUMBER DESCRIPTION X D2750-041 350 SKIDTUBE ASSEMBLY, LH D2750-042 350 SKIDTURE ASSEMBLY RH D2750-043 350 SKIDTUBE ASSEMBLY, LH D2750-044 350 SKIDTURE ASSEMBLY RH -8 -8 8 D2743 SPACER R 1 D2744 CAP 8 D2745 BUSHING 1 D2750-1 SKIDTUBE WELDMENT, LH D2750-2 SKIDTUBE WELDMENT, RH D2750-3 SKIDTUBE WELDMENT, LH D2750-4 SKIDTUBE WELDMENT, RH D3488-041 BLADE FITTING, LH D3488-042 BLADE FITTING RH 4 D3490-1 SPACER D3490-3 4 Δ SPACER 4 4 D3490-5 SPACER 8 D3492-041 PLUG ASSEMBLY 8 8 8 8 D3492-043 PLUG ASSEMBLY D3492-045 PLUG ASSEMBLY D3535-25 WEARSHOE 1 1 1 1 D3536-25 GASKET 3 D3537-1 WEARPAD D3631-1 -8 8 8 8 WASHER D3791-1 WEARPLATE 1 D3703 1 WEARSHOE 1 1 1 D3793-3 WEARSHOE 1 1 1 D3794-1 GASKET D3794-3 GASKET INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225) ALS4-1032-225 38 38 38 34 34 34 AN3C5A BOLT 4 AN3C6A 4 BOLT -4-4 4 4 AN6C44A BOLT AN8C35A BOLT 38 AN960C10I 38 38 WASHEE 1 AN960C816L WASHER 4 MS21043-6 4 4 MILIT MS21083C8 1 NUT 4 4 NAS1515H3L WASHER

GENERAL NOTES:

C

В

MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0). FINISH:

OCID ETCH, ALONDE ASSEMBLY PER DART OSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART OSI 005 4.3

BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: N/A

IDENTIFICATION: N/A

WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS WELD PER DART QSI 004

WELD PER DART QSI 004
INSTALL ALS-4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL "F' SIZE HOLES (Ø 0.297) FOR WEARSHOE INSERTS
FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM MILLID TENSILE STRENGTH = 35 KSI
MINIMUM ULIMATE TENSILE STRENGTH = 38 KSI
SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

SHOP COPY RETURN TO ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER MCJ

1207/19

			ľ						
F	INCORPORATE DSI 9413: OTY (3) DSS7-1 WAS OTY (5) (ZN C8-1); D3791-1-3.8 REPLACES DSS3-13-35 (ZN C8-1); D3791-1-3.8 REPLACES DSS3-13-35 (ZN C8-1); D3794-1-3.8 REPLACES DSS6-13-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL), WEARSHOE HARDWARE OTY UPDATED (ZN B8-1); D3488-041/4-22 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043);	PH ,	08.07.16						
E	CHANGE TO STAINLESS STEEL WEARPLATES: ADD RUBBER GASKETS; CHANGE INSERTS, ADD D3631-1; REMOVE QTY, (38) NAS15151513, REMOVE QTY (10) CB 07.05.1 NAS1515181; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS2103356								
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05						
С	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18						
В	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01						
Α	NEW ISSUE	DS	98.04.16						
REV.	DESCRIPTION	.BY ′	DATE						
DESIGN	DART AEROSPACE	USA	INC.						

DESIGN	PU,	DART AEROSPACE USA, INC.							
DRAWN	RH	PORT HADLOCK, WA							
CHECKED		DRAWING NO.	REV. F						
MFG. APPR.	ALC:	D2750 sı	HEET 1 OF 11						
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DE APPR.	7	☐ 350 SKIDTUBE ASSEMBLY	NTS						
DATE OR O	7 16	COPYRIGHT © 1998 BY DART AEROSPACE US. THE COCUMENT IS PRINTE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS OF							

SSION FROM DART AERCSPACE USA INC

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Part I	۷o.					Scrap			Machining	Small Fab	3	od. Eng. Coor.		Quality
						Use-as-is			noforming	Finishing	Rec/St	ore/Packaging	_	Other
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		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/I	Unclear	Part Lost/	Missing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Move	d		
		Heat Trea	at			Countersink] Mislabe	led		Positioned	l Wrong		
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	i		Power Los	s/Surge		Other
		Ripples in	Bend			Drill Holes		Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

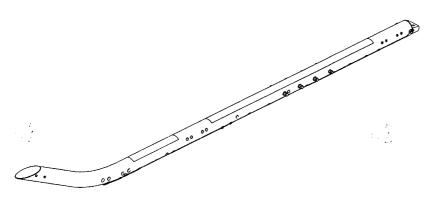
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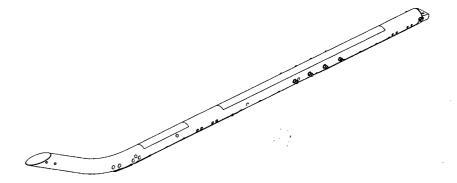
Finish

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С





D2750-041 350 SKIDTUBE ASSEMBLY, LH

D2750-042 350 SKIDTUBE ASSEMBLY, RH



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		Heat Trea	t			Countersink		Mislabe	led		Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

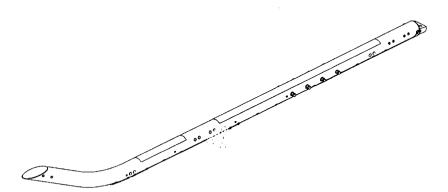
Drill Holes

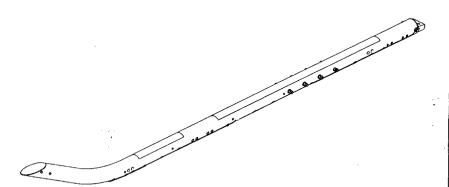
Drawing

Finish

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D2750-043 350 SKIDTUBE ASSEMBLY, LH

D2750-044 350 SKIDTUBE ASSEMBLY, RH



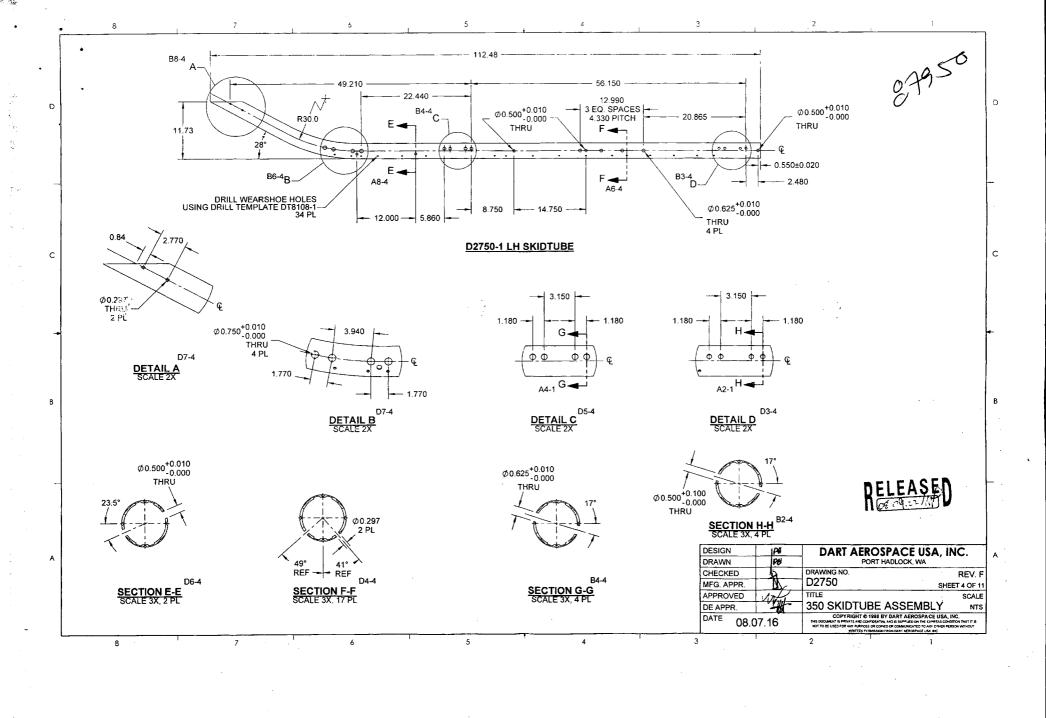
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DATE 08.0	07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, THIS DOCUMENT IS PRIVATE AND CONTIDENTIAL AND IS SUPPLED ON THE EXPRESS CON HOT TO BE USED FOR ANY PUPPOSE OR COPPED OF CONVUNICATED TO ANY OTHER RE-	OUTDANT MODIFIE

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Operator [
Material													
Setup								:					
Other													

FAULT CATEGORY Landing Gear General Bending Bend Grain Ovalized Pressure/Forced Centre Not Concentric to O/S BOM/Route Temperature/Cure Over/Under tolerance Hardware Broken/Damaged Part Incorrect Weld Cracks Inspection Incomplete Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Maintenance Part Moved Contamination **Heat Treat** Countersink Mislabeled Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Drill Holes Offset Ripples in Bend **Torque Waves in Extrusion** Drawing Out of Calibration **Turning Sequence** Finish Out of Sequence Wave/Twist in Tube Folio Outside Dimensions

Process
Supplier
Training
Unapproved

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									DQA:	Date:	•
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Part No.		_			Rework Scrap Use-as-is Work Order Update	The	Skid-tube Machining rmoforming Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Quality Other
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Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved	23)										

Mislabeled Positioned Wrong Heat Treat Countersink Inspection Strip in Tube Other **Cut Too Short** Misread Power Loss/Surge Ripples in Bend **Drill Holes** Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Wave/Twist in Tube Folio Outside Dimensions

FAULT CATEGORY

Grain

Hardware

Maintenance

Inspection Incomplete

Instructions Incomplete/Unclear

Pressure/Forced

Weld

Temperature/Cure

Wrong Stock Pulled

Ovalized

Part Incorrect

Part Moved

Part Lost/Missing

Over/Under tolerance

General

Bend

Burrs

BOM/Route

Contamination

Broken/Damaged

Landing Gear

Bending

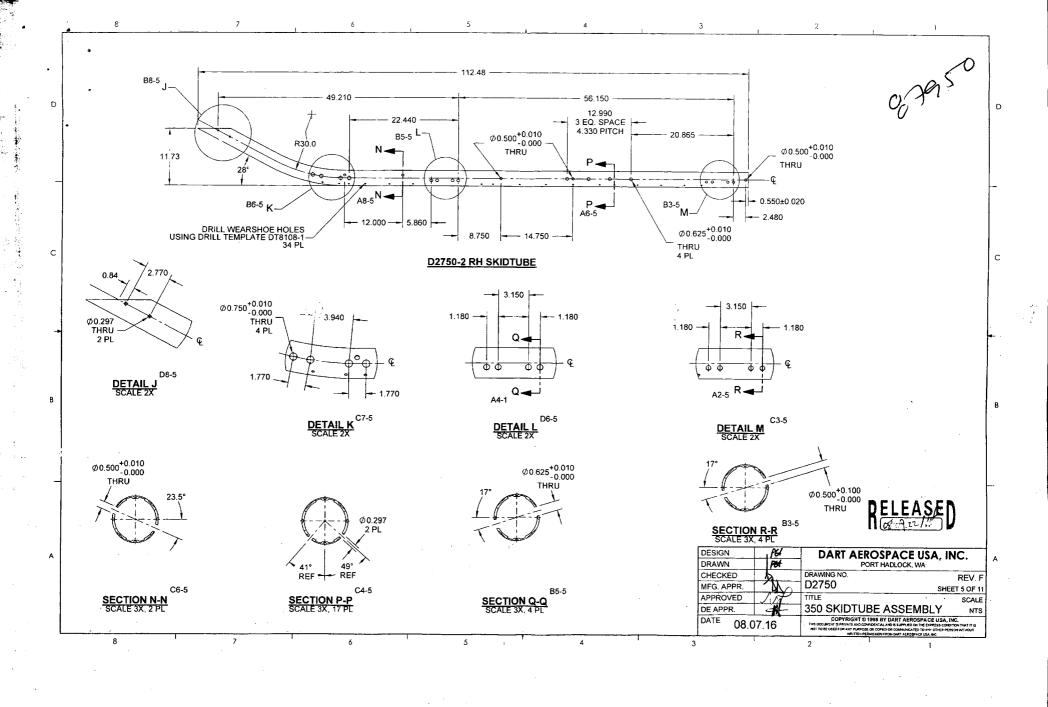
Cracks

Cuffs

Crushed/Crimped.

Centre Not Concentric to O/S

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	Cracks			Ĺ	Broken/Damaged		Inspect	ion Incomplete	Ţ		Part Incorred	t	Weld
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	Heat Trea	at			Countersink		Mislabe	eled			Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

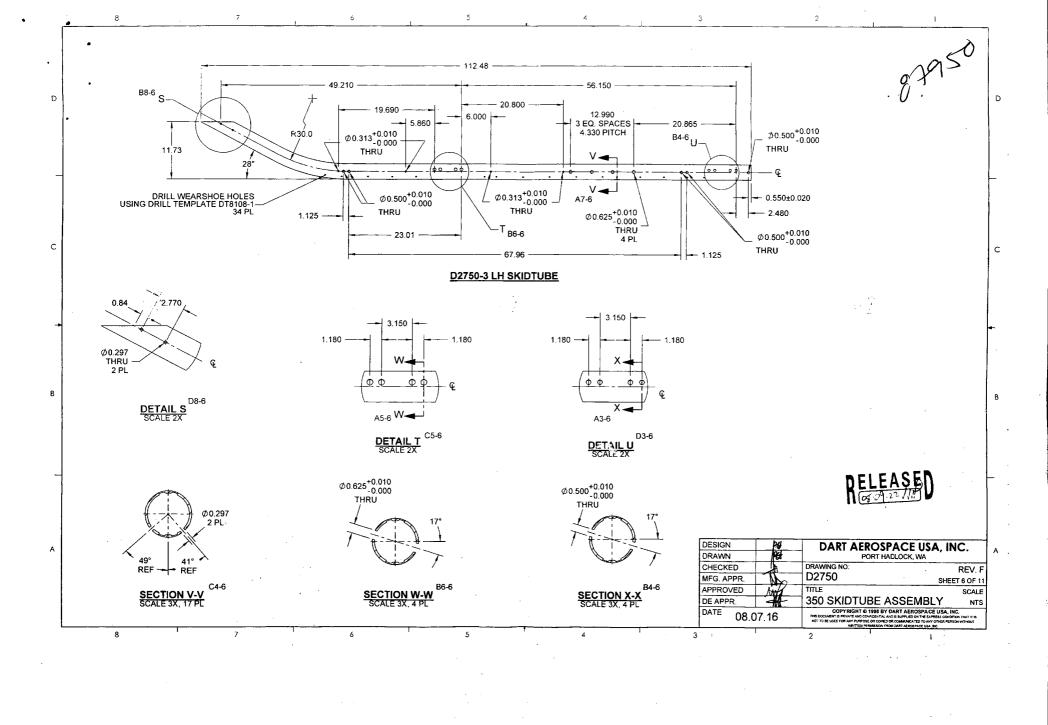
Cut Too Short

Drill Holes

Drawing

Finish

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Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

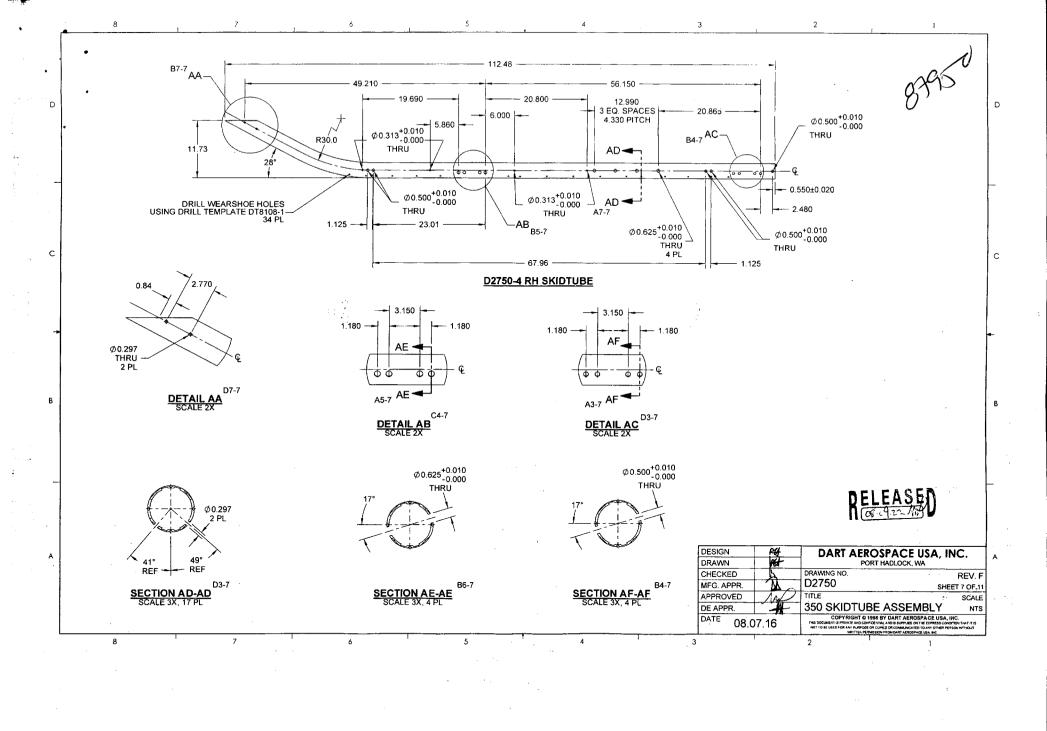
Cut Too Short

Drill Holes

Drawing

Finish

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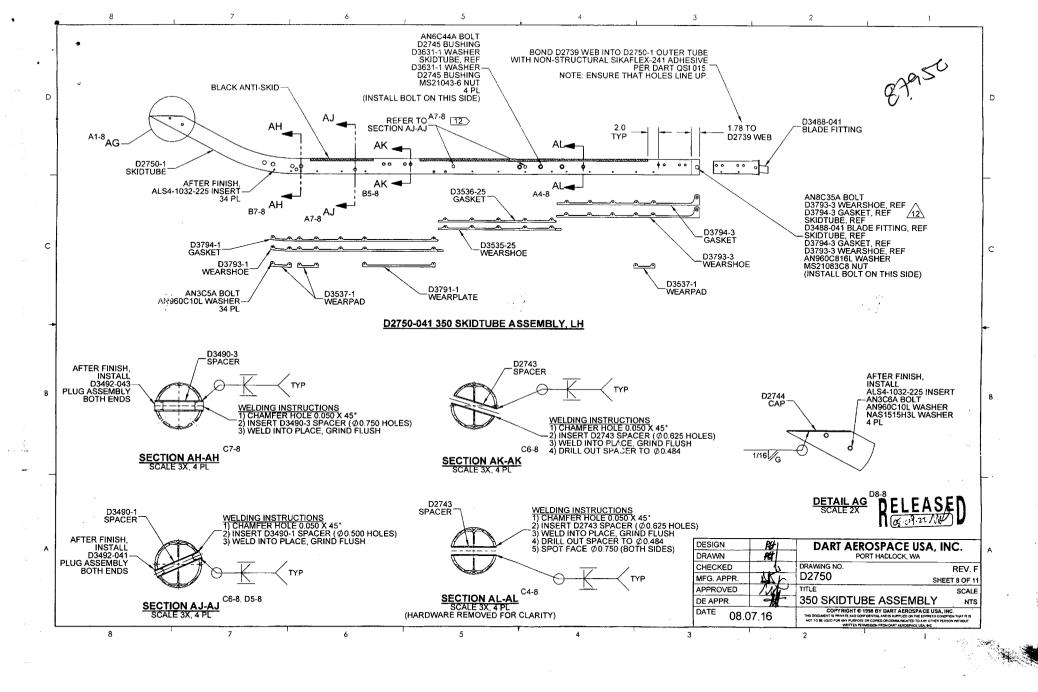
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Date:

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Part !	No.					Scra	p 🗌	. [Machining	Small Fab] Pro	d. Eng. Coor.	Quality
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		Heat Trea	it		Γ	Countersink		Mislabe	eled	Γ	Positioned \	V rong	
	Γ	Inspection	n Strip in	Tube		Cut Too Short		Misread	d		Power Loss/	/Surge	Other
		Ripples in	Bend			Drill Holes		Offset		_	_	_	
		Torque W	aves in E	xtrusio	n	Drawing		Out of (Calibration	•			
		Turning S	equence		r	Finish		Out of	Sequence				
	Wave/Twist in Tube Folio Outside Dimensions												

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FAULT CATEGORY													
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	${f H}$	cracks			·	Broken/Damaged	\vdash	1	on Incomplete	. .	Part Incorre		Weld
		crushed/0	rimped,		<u> </u>	Burrs	\vdash	4	ions Incomplete/	Unclear	Part Lost/M		Wrong Stock Pulled
I	0	Cuffs			1	Contamination	1	Mainte	nance		Part Moved	}	

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

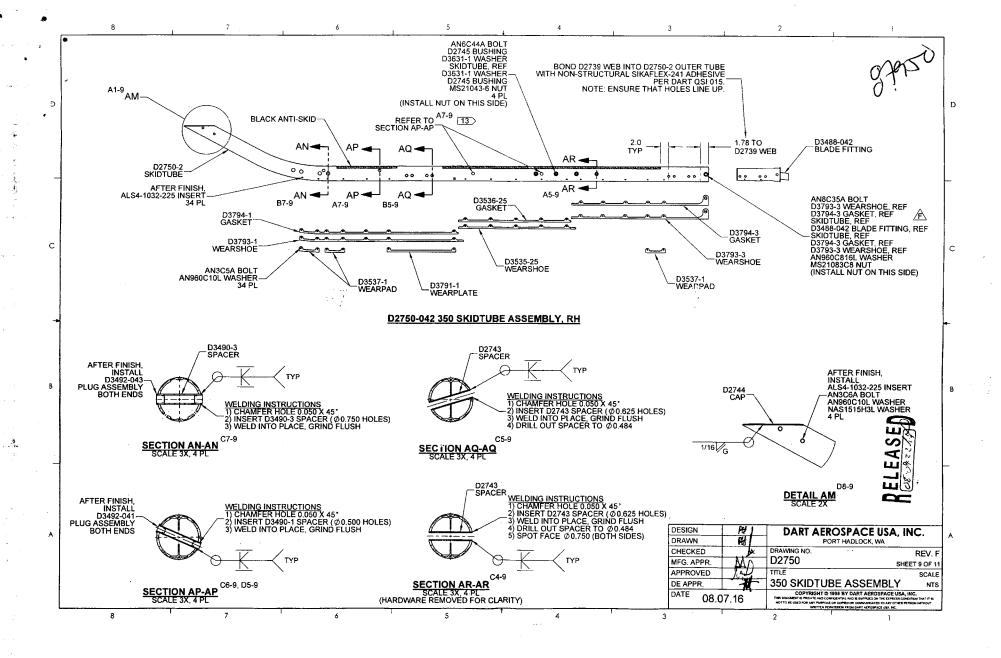
Cut Too Short

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G



										DQA:	Date:	•
NCR:	Yes / No				WORK ORDER NON-C	10:	NFOR	MANCE / UPDAT	ΓΕ	·	· · · · · · · · · · · · · · · · · · ·	•
										QA Closed:	Date:	•
Mante Ond					DISPOSITION			ı.	AGAINST DEF	PARTMENT	/PROCESS	
Work Ord	er:	·						Skid-tube C	rosstube		Water Jet	,]
Part I	No.				Rework Scrap			 	Small Fab	Dro	d. Eng. Coor.	Engineering Quality
raiti	v o				Use-as-is			~ ⊢ ⊣	Finishing		e/Packaging	Other
NCR I	No.				Work Order Update		1110111	· —	omposite	1100/3101	Supplier	
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Root				Descri	ption of work order update	Π	nitial	Action		Sign &		
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Doc/Data												
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					- · · · · · · · · · · · · · · · · · · ·	<u>AUL</u>	T CATE	GORY				
Landi	ng Gear				General T	_	1					٦
	Bending Bend					\vdash	Grain			Ovalized		Pressure/Forced
	H .	Centre Not Concentric to O/S BOM/Route					Hardwa			Over/Under		Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	<u> </u>	1	ion Incomplete	<u> </u>	Part Incorre	⊢	Weld
	 -	/Crimped	-	<u> </u>	Burrs		4	ions Incomplete/Uncle		Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs	-		<u> </u>	Contamination	$ldsymbol{le}}}}}}}$	Mainte	enance		Part Moved		
	Heat Tro	eat		l	Countersink	1	Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

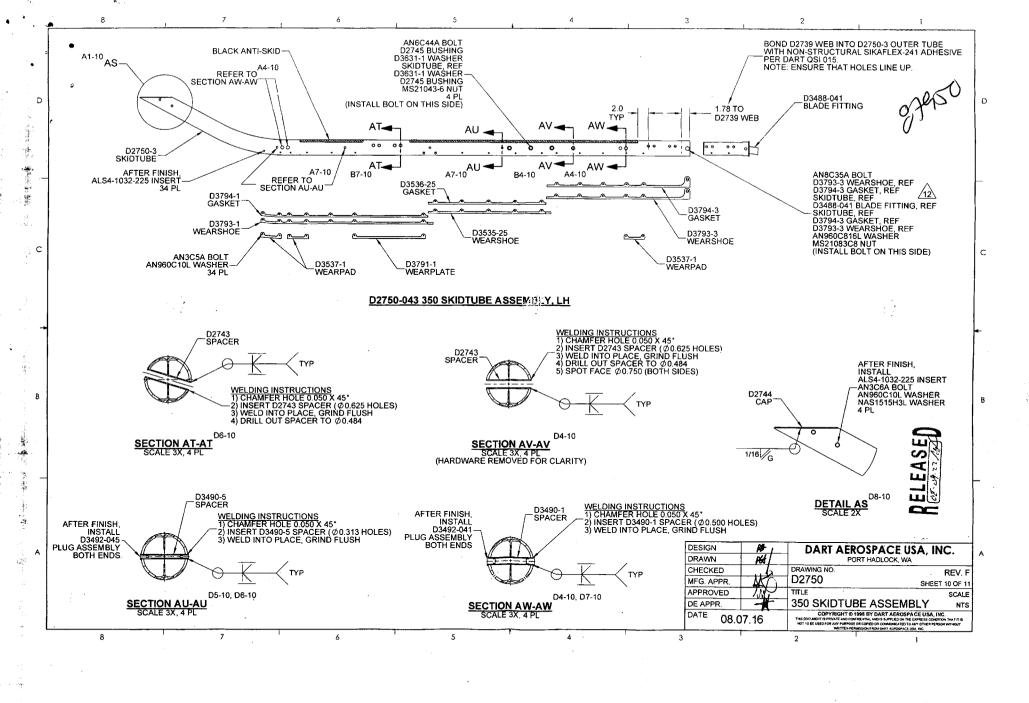
Cut Too Short

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G



											DQA:	Date:	•	
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Part N	o.				-	Rework Scrap		<u> </u>	Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality	
NCR N	NCR No.					Use-as-is Work Order Update		Thermoforming Finishing Large Fab Composite		Rec/Store/Packaging Supplier		Other		
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Landing Gear General Bending Bend Grain Ovalized Pressure/Forced Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Inspection Incomplete Part Incorrect Weld Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Maintenance Part Moved Contamination **Heat Treat** Countersink Mislabeled Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Ripples in Bend Drill Holes Offset **Torque Waves in Extrusion** Drawing Out of Calibration Turning Sequence Out of Sequence Finish

Outside Dimensions

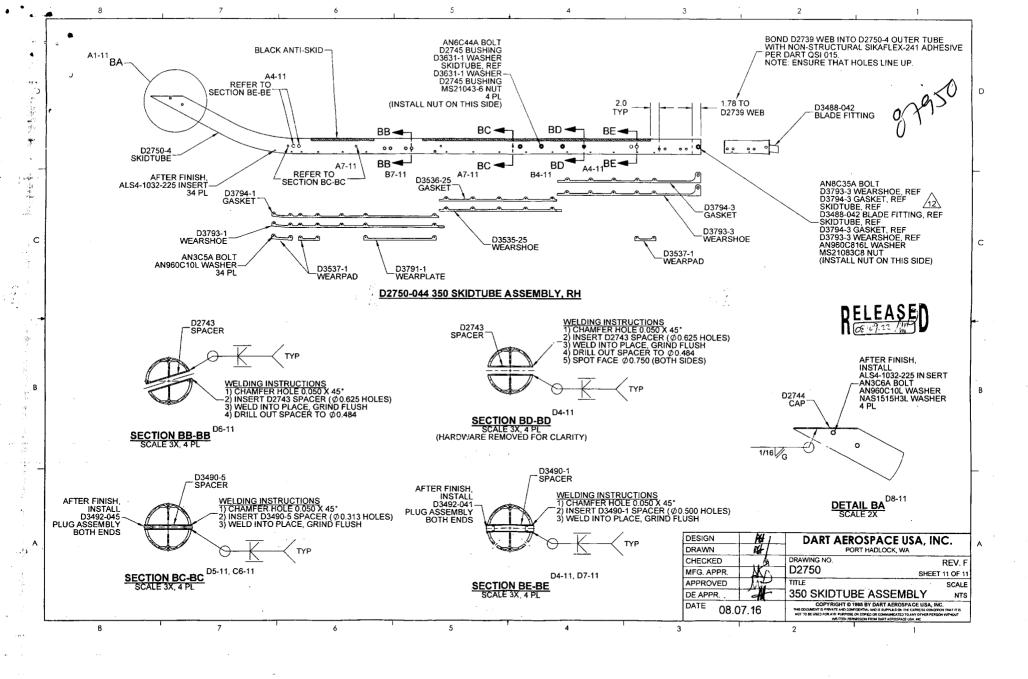
FAULT CATEGORY

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Wave/Twist in Tube

Folio

Supplier Training Unapproved



											DQA:	Date:	
NCR:	es /	' No				WORK ORDER NON-C	1O:	NFORN	MANCE / UPDATE		QA Closed:	Date:	•
						DISPOSITION			۸۵۸	INST DE	PARTMENT	·····	
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Part No						Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing		l Fab	Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other		
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Landi						General Bend	_	Grain		Г	Ovalized		Pressure/Forced
	─				n/s	BOM/Route	-	Hardwa	ro.		Over/Under	toloranco	Temperature/Cure
	 				Broken/Damaged	\vdash	1	on incomplete	-	Part Incorre		Weld	
		rushed/0	rimned		<u> </u>	Burrs	\vdash	1	ions incomplete/Unclear		Part Lost/M	<u> </u>	Wrong Stock Pulled
	_	uffs	ampeu.		<u> </u>	Contamination		Mainte	•	·	Part Moved		Tanton's stock runed
:		eat Trea	t			Countersink	\vdash	Mislabe		-	Positioned V	Vrong	
	-		· Strip in	Tube		Cut Too Short	\vdash	Misread			Power Loss/	_	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

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Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

NO. 300

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Bo	arday Fllistt	
Job #: 87	1941	
Part #: 1 2	150-636-011	
Description:	Skid	
Welding Process:	Tig[Mig[]	
Base materiel:	Alun.	
Current: AC	DC[]	

TEST REQUIREMENTS AND RESULTS

Visual:	pass[1]	fail[]
Incomplete Penetration:	pass[/]	fail[]
Incomplete Fusion:	pass[]	fail[]
Cracks:	pass[/	fail[]
Overlap (cold lap)	pass[']	fail[]
Undercut:	pass[]	fail[]
Pin holes:	pass[]	fail[]
Porosity (surface):	pass[/	fail[]
Coloration:	pass[]	fail[]
Burn through:	pass[]	fail[]

Qualifier Devil Acus Date of Test Coupon 12.57.26

Welder Box Coupon 12-07 26

The above named individual is qualified in accordance with AWS D17.1.2001 to weld